

RINGKASAN

Tanah yang rusak akibat erosi akan mengalami kemunduran sifat-sifat kimia dan fisika tanah seperti kehilangan unsur hara dan bahan organik, meningkatnya kepadatan serta ketahanan penetrasi tanah, menurunnya kapasitas infiltrasi tanah serta kemampuan tanah menahan air. Tanah Latosol merupakan tanah dengan pelapukan lanjut karena sangat tercuci. Tanah latosol telah mengalami hancuran cukup intensif. Sebagai akibatnya kandungan unsur-unsur hara dalam tanah latosol relatif rendah, kapasitas tukar kation rendah, dan jumlah basa-basa rendah. Penelitian ini bertujuan untuk (1) Mengetahui faktor tingkat kepekaan tanah terhadap erosi pada jenis tanah latosol di Kecamatan Karangreja, Kabupaten Purbalingga, dan (2) Mengetahui nilai prediksi erosi pada jenis tanah latosol di Kecamatan Karangreja, Kabupaten Purbalingga.

Penelitian ini dilaksanakan dari bulan Maret sampai dengan September 2018 di Kecamatan Karangreja, Kabupaten Purbalingga. Analisis tanah dilakukan di Laboratorium Ilmu Tanah, Fakultas Pertanian Universitas Jenderal Soedirman. Penelitian ini merupakan penelitian survei. Pengambilan sampel dibagi menjadi dua yaitu sampel tanah terganggu (*Disturbed Soil Sample*) dan sampel tanah tidak terganggu (*Undisturbed Soil Sample*). Variabel pengamatan yang diamati meliputi struktur tanah, bahan organik tanah, tekstur tanah, permeabilitas tanah, panjang lereng dan kemiringan lereng (LS), pengelolaan tanaman (C), tindakan konservasi (P). Metode yang digunakan adalah metode USLE (*Universal Soil Loss Equation*). Nilai erodibilitas tanah dihitung menggunakan nomograf Wischmeier.

Hasil penelitian menunjukkan lahan semak memiliki nilai erosi yang sangat tinggi, lahan tegalan sangat rendah sampai rendah, lahan perkebunan/kebun bervariasi dari rendah, sedang, sampai tinggi. Erosi yang melebihi nilai toleransi erosi adalah lahan semak dan sebagian besar lahan perkebunan/kebun. Erosi yang tidak melebihi nilai toleransi erosi adalah lahan tegalan dan sebagian kecil lahan kebun.

SUMMARY

Soils damaged by erosion will experience deterioration in the chemical and physical properties of the soil such as loss of nutrients and organic matter, increased density and resistance to soil penetration, decreased soil infiltration capacity and ability to retain water. Latosol soil is a soil with further weathering because it is very washed. The land of latosol has been destroyed quite intensively. As a result, the nutrient content in the latosol soil is relatively low, the cation exchange capacity is low, and the number of bases is low. This study aims to (1) Determine the level of soil sensitivity to erosion in latosol soil types in Karangreja Subdistrict, Purbalingga Regency, and (2) Know the predicted value of erosion in latosol soil types in Karangreja Subdistrict, Purbalingga Regency.

This research was conducted from March to September 2018 in Karangreja District, Purbalingga Regency. Soil analysis was conducted at the Soil Science Laboratory, Faculty of Agriculture, Jenderal Soedirman University. This research is a field survey research. Sampling was divided into two including disturbed soil samples and undisturbed soil samples. Observation variables observed included soil structure, soil organic matter, soil texture, soil permeability, slope length and slope (LS), crop management (C), conservation action (P). The method used is the USLE (Universal Soil Loss Equation) method. Soil erodibility values are calculated using the Wischmeier nomograph.

The results showed that shrub land has very high erosion value, very low to low dry land, plantation land varies from low, medium to high. Erosion that exceeds the erosion tolerance value is bush land and most of the plantation land. Erosion that does not exceed erosion tolerance values is dry land and a small portion of plantation land.